**VOL 2 No.1  Nov. 29, 1979**

Those of you who are starting with us with this volume may be interested in a
very short history. The Bally Arcade was first advertised by the Chicago mail
order house of JS&A in such magazines as Popular Science, Scientific American,
the airline freebies and a couple of others in Sept/Oct. of 1977. In the two
page ad, delivery was promised in four weeks and the expansion unit was indi-
cated to be available in 6 weeks, so that a complete and highly sophisticated
computer would be shotly available at a $600 price range. The Tiny BASIC
showed up in October 1978, and I started this subscription newsletter in Nov.
We have yet to see the expansion unit (Add On)(Level III), but in the last year
a number of doors have been unlocked in the Tiny BASIC and subscribers, as a
group, are the only ones able to expand their programs and enhance their oper-
ations. This Newsletter is the only established source of free programs, and
provides a place for those wishing to market their outputs.

PRINTER OUTPUT.  I GUESS YOU NOTE THE UNUSUAL TYPE IN THIS PARAGRAPH; THIS IS
BEING TYPED VIA MY NEW Comprint 912S PRINTER UNDER DIRECT CONTROL OF THE BALLY.
I HOPE TO PRINT MORE OF THE ARCADIAN THIS WAY IN THE FUTURE - THIS IS A SAMPLE
TO WHET YOUR APPETITE. THIS MACHINE WAS ADVERTISED ON THE INSIDE FRONT COVER OF
THE JULY KILOBAUD. COST IS $699 RETAIL, BUT I HAVE A SOURCE FOR IT AT $525
FOB SAN JOSE (PLUS CAL TAX IF APPLICABLE).  FULL DETAILS NEXT TIME.

*SAUCER BATTLE*

BY JOHN HURST

9/79

| | |
|---|---|
| 10 - 100 | Initialize and Input mode of play.  Draw stars and print scoring. |
| 200 - 290 | Draw saucers and allow control by hand controls.  Two player game. |
| 300 - 495 | One player against computer.  Draw saucers, left for player, right for computer.  Computer random positioning and movement. Set ups for computer or TR(1) firing. |
| 500 - 530 | Set ups for TR(1) or TR(2) firing in two player mode. |
| 540 | Back to two player program if neither saucer fires LASER. |
| 600 - 680 | Fire left saucer's LASER, if a hit goto blowup routine, if not go back to one or two player routine, whichever is in use. |
| 700 - 780 | Same as 600, but for right saucer. |
| 800 - 860 | Blowup right saucer, back to main program in use.  Upgrade score. |
| 900 - 960 | Blowup left saucer, back to main program in use.  Upgrade score. |
| 1000 -1010 | Print GAME OVER. If GO key is pressed, goto line 10 to play again. |

This game can be played by two or one, (against the computer).
Difficulty of hitting target can be selected, 0→1, 0 being the hardest.
Amount of LASER blasts and Max Score to win can be selected.  If one player
option is selected, accuracy of the computer can be set, 0→2, 0 being the
most accurate. If the computer fires with accuracy is 0, it will not miss.
If both triggers are pulled at the same time, neither will fire, in two
player option.  If remaining LASER blasts are five or less, an open hole
will appear in the center of the saucer that is low on charge.  When all
charge for LASER is depleted for one saucer, he can no longer fire.  If
both saucers are depleted of charge, or Max Score is reached by one saucer,
game is over.  To play again just press GO key.
The memory use of this game is very close to the max available to the
Bally, so care should be used when entering this program. Use no spaces unless
necessary, the listing may have extra spaces due to my typing. If you
don't need them, don't use them. Also deleting lines 1 - 5 can save some
memory if needed.  Good Luck.

John R. Hurst

PROGRAM NAME  SAUCER BATTLE

```
Line #   Statement(s)
1     .*SAUCER BATTLE*
2     .
3     .BY JOHN HURST
5     . 9/79
10    F=0;G=0;I=0;J=0;NT=1
20    CLEAR;BC=0;FC=126;B(0)=0;
      B(1)=0;B(2)=126;B(3)=0
30    INPUT"DIFFICULTY:0÷12" N
40    PRINT "HOW MANY
50    INPUT"LASER BLASTS ?" U
60    INPUT"MAX SCORE ?" H
70    INPUT"1 or 2 PLAYERS ?" L;
      IF L=1 INPUT"ACCURACY OF
      COMPUTER:0÷2 ?" M
80    CLEAR;FOR A=1to56;B=RND)
      (130)-65;C=RND(88)-44
90    BOX B,C,1,1;NEXT A;CX=
      =17;CY=40;PRINT "+SCORE=
100   CX=-77;CY=32;PRINT #10,J;
      #8,J;IF L=1 GOTO 300
200   K=KN(1)÷4-6;D=KN(2)÷4-6
210   BOX-75,K,4,4,3;BOX75,D,4,
      4,3
220   IF F>=U-5 BOX-75,K,2,2,3
230   IF G>=U-5 BOX 75,D,2,2,3
240   IF F>=U-5 BOX-75,K,2,2,3
250   IF G>=U-5 BOX 75,D,2,2,3
260   BOX-75,K,4,4,3;BOX75,D,4,
      4,3
270   IF F=U IF G=U GOTO 1000
280   IF(TR(1))-(TR(2))GOTO 500
290   GOTO 200
300   D=RND(76)-38
310   K=KN(1)÷4-6;D=D+RND(10)-5
320   IF D>25 D=25
330   IF D<-38 D=-38
340   BOX-75,K,4,4,3;BOX75,D,4,
      4,3
350   IF F>=U-5 BOX-75,K,2,2,3
360   IF G>=U-5 BOX 75,D,2,2,3

370   IF F>=U-5 BOX-75,K,2,2,3
380   IF G>=U-5 BOX 75,D,2,2,3
390   BOX-75,K,4,4,3;BOX75,D,4,
      4,3
400   IF F=U IF G=U GOTO 1000
410   IF F=U GOTO 440
420   IF TR(1)GOTO 600
430   IF G=U GOTO 310
440   IF M=1 GOTO 480
450   IF M=2 GOTO 490
460   IF K>D-1 IF K<D+1 GOTO 700
470   GOTO 310
480   IF K>D-3 IF K<D+3 GOTO 700
485   GOTO 310
490   IF K>D-6 IF K<D+6 GOTO 700
495   GOTO 310
500   IF F=U GOTO 536
510   IF TR(1) GOTO 600
520   IF G=U GOTO 200
530   IF TR(2) GOTO 700
540   GOTO 200
600   BOX-75,K,4,4,3;BOX75,D,4,
      4,1
610   F=F+1;LINE-73,K,4;LINE
      75,K,3
620   B(16)=255;B(21)=255;
      B(23)=44
630   LINE-73,K,4;LINE75,K,3;
      LINE0,0,4;B(16)=0;B(21)=0;
      B(23)=0;IF N=1GOTO 670
640   IF K>D-2 IF K<D+2 GOSUB800
650   BOX-75,K,4,4,2;BOX75,D,4,
      4,2;IF L=1 GOTO 300
660   GOTO 200
670   IF K>D-3 IF K<D+3 GOSUB800
680   GOTO 650
700   BOX 75,D,4,4,1;BOX-75,K,
      4,4,1
710   G=G+1;LINE73,D,4;LINE -75,
      D,3

720   B(23)=255;B(21)=255
730   LINE 73,D,4;LINE-75,D,3;L1
      NE 0,0,4;B(21)=0;B(23)=0;
      IF L=2 IF N=1 GOTO 770
740   IF D>K-2 IF D<K+2 GOSUB900
750   BOX 75,D,4,4,2;BOX-75,K,4,
      4,2;IF L=1 GOTO 300
760   GOTO 200
770   IF D>K-3 IF D<K+3 GOSUB900
780   GOTO 750
800   FOR E=1 TO 10;B(9)=37;
      B(2)=90
810   FOR P=0 TO 1
820   BOX 75+RND(4)-2,D+RND(4)-2
      9,2,3;NEXT P
830   MU="";NEXT E;B(2)=126;
      B(9)=50
840   J=J+1;CX=-77;CY=32;PRINT
      #10,J
850   IF J=H GOTO 1000
860   BOX 75,D,10,10,2;RETURN
900   FOR E=1to10;B(9)=4;FC=90
910   FOR P=0 TO 1
920   BOX-75+RND(4)-2,K+RND(4)-
      9,2,3;NEXT P
930   MU="";NEXT E;FC=126;B(9)
      =50
940   J=J+1;CX=-17;CY=32;PRINT I
950   IF J=H GOTO 1000
960   BOX-75,K,10,10,2;RETURN
1000  CX=-23;CY=0;PRINT"GAME
      OVER
1010  R=KP;IF R=13 GOTO 10
```

ANOTHER PRINTER has been successfully connected to the Bally, writes John Hurst. He has a Victor Model 1250 that uses 3 3/4" wide adding machine tape, with 34 characters per line. John sent some sample material, but the print was blue and wouldn't reproduce. He also needs the little converter that was shown on p.47 of Vol. 1.

NOSTALGIA for those who can recall some of the older Bally gaming machines. This antique was included in an auction held at Disneyland in late November.
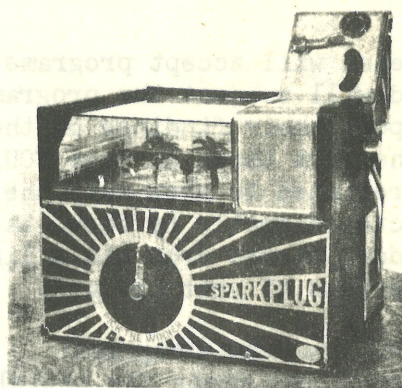


*Bally Sparkplug Paying Horse Race Game.*

DECIMAL DIVISION is a version by Laurence Gallant that will give you up to 32,676 decimal places (the variable Z).

```
1  .DECIMAL DIVISION
5  .BY L. GALLANT
10 INPUT X,Y,Z
20 A=X÷Y
30 PRINT #1,A,#1;".",
40 FOR B=1 TO Z
50 E=(RM×10)÷Y
60 PRINT E,
70 NEXT B
```

LOGO shown at the head of page ONE is based on an idea by Guy McLimore, and embellished by myself. If you'd like to see it in action (literally) and in living color, the program is included.

PROGRAM NAME LOGO

| Line # | Statement(s) |
|---|---|
| 10 | CLEAR |
| 20 | &(9)=37 |
| 30 | BC=250;FC=7 |
| 40 | FOR A=1 TO 150 |
| 50 | H=RND(160)-80;V=RND(88)-44 |
| 60 | BOX H,V,1,1,RND(2) |
| 70 | NEXT A |
| 80 | &(9)=85;&(1)=250 |
| 90 | &(2)=108;&(11)=250 |
| 100 | CX=-44;CY=0 |
| 110 | PRINT"ARCADIAN |
| 120 | LINE 0,0,4 |
| 130 | FOR Q=0 TO 35 STEP 2 |
| 140 | LINE 75,Q,3;LINE 0,0,4 |
| 150 | LINE 75,-Q,3;LINE 0,0,4 |
| 160 | NEXT Q |
| 170 | L=7;FOR Z=48 TO 51 |
| 180 | BOX -Z,0,1,L,1 |
| 190 | L=L-2 |
| 200 | NEXT Z |
| 210 | BOX -22,0,56,9,3 |
| 220 | FOR Q=0 TO 35 |
| 230 | LINE 75,Q,3;LINE 0,0,4 |
| 240 | LINE 75,-Q,3;LINE 0,0,4 |
| 250 | NEXT Q |
| 260 | GOTO 220 |

PROGRAM REVIEWS are being covered in detail in this first issue of Vol.2
in order to act as a reference base for future material. Dick Houser
635 Los Alamos Ave., Livermore,CA 94550 is heading up a team consisting of

|                |                   |                  |
|----------------|-------------------|------------------|
| Steve Wilson   | 18015 Sally Ave.  | Cleveland OH 44135 |
| Don Daniels    | 3 Apex Road       | Melville NY 11746 |
| Bill Rueger    | 336 Beach 38th St | Far Rockaway NY 11691 |
| Phil Shafer    | 3708 Big Horn Trail | Plano TX 75075 |

These gentlemen will accept programs which are offerred FOR SALE by various
vendors, and will subject the programs to hands-on operation, review these
and then report their findings on the quality of subject matter, documentation,
etc., per the form shown on page FOUR. The reviews that appear in the ARCADIAN
will be abbreviated to show only the rating answers. Program vendors are
being contacted directly by Dick, based on ads run previously. If you are
a 'new' vendor, please drop him a line if you are interested in having
impartial reviews of your product.

CORRECTIONS of previous programs:
        Dick Nitto, who wrote the article "Have a Ball with Bally" in the latest
KILOBAUD writes about dropouts in two of the lines in the program he had
included there- They should read

        270  GOSUB 440; IF G=1 GOTO 330
        280  IF S=0 R=R+1; GOTO 330
He also writes that an easier version is possible if you substitute
        260 IF X<3 IF X>-3 IF Y<3 IF Y>-3 GOTO 300
        440 IF X<4 IF X>-4 IF Y<4 IF Y>-4 A=520; G=1; GOTO 460

        MICROTREK needs to be corrected to
        200 CLEAR; C = E-S; IF C 0 C=-C
        220 Q=0; IF C 2 IF G 2  Q=1
        and Bill Templeton suggests the following color commands for enhancement.
Insert them in each line just before the RETURN command -
        700  FC = 0;
        710  FC = 90;
        720  FC = 172;
        730  FC = 133;

        SPACE WAR  as printed on p.79 had two points needing work, writes
John Johnson. The asterisk (*) in lines 300 and 500 should be changed to
the x for multiplication. In line 820, the Y-5 should be T-5

        RESEQUENCING apparently does not work on all machines. We noted on p. 25
that there were at least two variations of Bally software. We'll work on this
to see what changes might have to be made.

        CHECKER as modified on p.90 has a typo of mine, in that the @(5)
in line 260 should be @(S).

        TUTORIAL (3) on p.41 is called a real space saving help by John
Collins, who suggests adding an equals sign to line 9030 so that it reads

        9030 PRINT #1,"=",%(20076 + (Zx2))

**REVIEW FORM**
    This form is used by the reviewer in doing his job, showing what things he will be looking for and the gradations possible. The very bottom of the form is what will appear in the ARCADIAN. You can refer back to this page to refresh your memory on the ratings.


Source Code _____ Cassette Code _____ Program Code _____ BPRF4

BALLY PROGRAM REVIEW

Date:_____
Name of Program:_____Cassette Name_____
Description:_____
Source:_____Price_____
Reviewed by:_____Age:____

Circle score for each item 0 1 2 3 4 5 6 7 8 9   on scoring line.

PROGRAM DOCUMENTATION  (PD)

        No Instructions 0 1 2 3 4 5 6 7 8 9   Very Clear Description
                                          Listing,Flowchart,Instructions

PROGRAM POLISH  (PP)

      Sloppy, Amateurish 0 1 2 3 4 5 6 7 8 9   Professional

USE OF SPECIAL FEATURES  (USF)

        Minimal Used 0 1 2 3 4 5 6 7 8 9   Great Use of Features
                                   Graphics, Sound, Handles

LEVEL OF CHALLENGE  (LC)

       Not Challenging 0 1 2 3 4 5 6 7 8 9   Very Challenging

ORIGINALITY AND CREATIVITY  (OC)

   Adapted, Same Old Stuff 0 1 2 3 4 5 6 7 8 9   Totally Brilliant and Unique

LEVEL OF INTEREST  (LI)

        Boring 0 1 2 3 4 5 6 7 8 9   Fascinating

EDUCATIONAL VALUE  (EV)

       Little 0 1 2 3 4 5 6 7 8 9   Really Learn Facts
                            and Skills

EASE OF USE  (EU)

   Awkward, Inconvenient 0 1 2 3 4 5 6 7 8 9   Easy, Quick, Convenient

OVERALL VALUE  (OV)

     Almost Worthless 0 1 2 3 4 5 6 7 8 9   Everyone Should Buy
............................................................
Name of Program:_____Cassette Name:_____
Description:_____
Source:_____Price_____
Reviewed By:_____Age:___
Ratings  : PD=__ PP=__ USF=__ LC=__ OC=__ LI=__ EV=__ EU=__ OV=__ TP=__ SZ=___
Time to Play _____ For Ages _____ # of Players _____

```
"ARCADE DICE" by KLAUS GRISMAYER

1.ARCADE DICE
2.BY K.F.G.
3:RETURN
5CLEAR;NT=Ø;FG=84;BC=24
1ØPRINT;PRINT" * * * ARCADE DICE * * *
2ØPRINT;PRINT;PRINT" 1 ELECTRONIC DICE
3ØPRINT;PRINT" 2 ELECTRONIC CRAPS GAME
4ØPRINT;PRINT;PRINT"    MAKE SELECTION
5ØIF&(23)=8 CLEAR;GOTO 1ØØ
6ØIF&(22)=8 CLEAR;K=1;T=Ø;GOTO15Ø
7ØGOTO5Ø
1ØØGOSUB78Ø;INPUT"# OF PLAYERS:"P;IF P>4 P=4
11ØIFPP=1 K=1;GOSUB 8ØØ;GOTO11Ø
12ØGOTO7ØØ
14ØCX=-75;CI=-4Ø;RETURN
15ØNT=1
16ØBOX Ø,3Ø,8Ø,9,2
17ØBOX Ø,4Ø,16Ø,8,2
18ØM=((KN(1)+128)÷28)+1
19ØIF&(22)=16 GOTO 5
2ØØGOSUB14Ø;PRINT" BET:$",#3,M,
21ØIF TR(1)=Ø GOTO 18Ø
22ØGOSUB 8ØØ
23ØGOSUB 5ØØ
24ØS=L+R
25ØIF S=7 GOSUB 51Ø;GOTO6ØØ
26ØIF S=11 GOSUB 51Ø;GOTO6ØØ
27ØIF S=2 GOSUB 52Ø;GOTO4ØØ
28ØIF S=3 GOSUB 52Ø;GOTO4ØØ
29ØIF S=12 GOSUB 52Ø;GOTO4ØØ
3ØØGOSUB5ØØ;PRINT"ROLL AGAIN",
31ØGOSUB8ØØ
32ØGOSUB5ØØ
33ØA=L+R
34ØIF A=S  GOSUB 53Ø;GOTO6ØØ
35ØIF A=7 GOSUB 54Ø;GOTO6ØØ
36ØGOTO 31Ø
4ØØGOSUB 14Ø;PRINT" # # # YOU LOSE # # #
41ØNT=8
42ØMU=49;MU=51;MU=53;MU=98;MU=49;MU=48;MU=53;
    MU=98;MU=49;MU=48;MU=48;MU=48
43ØNT= Ø
44ØCX=-75;CI=-4Ø;PRINT" LOST $",#3,M,
45ØM=-M
46ØGOTO55Ø
5ØØCX=-2Ø;CI=3Ø;RETURN
51ØPRINT"A NATURAL",;RETURN
52ØPRINT"CRAPS",;RETURN
53ØPRINT"A MATCH   ",;RETURN
54ØPRINT"CRAP OUT  ",;RETURN
55ØT=T+M
56ØCX=Ø;PRINT"YOU HAVE $",#3,T,
57ØFOR Z=1TO1ØØ
58ØI=Y+1;NEXTZ;I=Ø
59ØGOTO15Ø
6ØØGOSUB 14Ø;PRINT"$$$$$$$$ A WINNER $$$$$$$$
61ØNT=8
62ØFORZ=1TO2
63ØMU=51;MU=48;MU=53;MU=48;MU=51;MU=52;
    MU=48;MU=53;MU=48;MU=48;MU=48
64ØNEXT Z;NT=Ø
65ØCX=-75;CI=-4Ø;PRINT" WIN $",#3,M,
66ØGOTO55Ø
7ØØFOR K=1TOP+3;@(K)=Ø;NEXTK
71ØFORK=1TO P
72ØGOSUB78Ø;PRINT"PLAYER #",#2,K," ROLLS",
73ØGOSUB8ØØ;@(K)=L+R;NEXTK
74ØFORK=1TO P
75ØIF@(K)>@(K+1) IF@(K)>@(K+2) IF@(K)>@(K+3)
    GOSUB78Ø;PRINT"PLAYER #",#2,K," WINS ",;
    GOTO77Ø
76ØNEXTK
77ØFORZ=1TO2ØØ;I=Y+1;NEXTZ;I=Ø;GOTO7ØØ
78ØCX=-4Ø;CI=-4Ø;RETURN
8ØØN=7-((KN(K)+128)÷42)
81ØNT=1;IF&(22)=16 GOTO 5
82ØCX=Ø;CI=-4Ø;PRINT"# OF ROLLS:",#2,N,
83ØIFTR(K)=Ø GOTO8ØØ
84ØNT=2Ø;FORD=1TON
85ØBOX-4Ø,Ø,44,44,1;BOX-4Ø,Ø,42,42,2
86ØL=RND(6);X=-4Ø;GOSUB89Ø+(LxlØ)
87ØBOX4Ø,Ø,44,44,1;BOX4Ø,Ø,42,42,2
88ØR=RND(6);X=4Ø;GOSUB89Ø+(RxlØ)
89ØNEXTD;NT=1;RETURN
```

```
900 GOSUB960;RETURN
910 GOSUB970;RETURN
920 GOSUB960;GOSUB970;RETURN
930 GOSUB970;GOSUB980;RETURN
940 GOSUB960;GOSUB970;GOSUB980;RETURN
950 GOSUB970;GOSUB980;GOSUB990;RETURN
960 BOX X,0,6,6,1;RETURN
970 BOX X+12,12,6,6,1;BOX X-12,-12,6,6,1;
    RETURN
980 BOX X-12,12,6,6,1;BOX X+12,-12,6,6,1;
    RETURN
990 BOX X-12,0,6,6,1;BOX X+12,0,6,6,1;RETURN
```

LINES 800 - 830 selects number of times
dice roll

LINES 840 - 890 roll dice (random selection)
and draws frame for dice

LINES 900 - 950 select dot combinations

LINES 960 - 990 draw dots on dice

---

ARCADE DICE is played with the hand controls. First menu selection allows up to four players to play in rotation, just enter the number of players, then press go. Number of rolls is selected by knob on hand control, pulling the trigger will begin the rolling. After the combination is displayed, control shifts to the next hand control. After everyone has thier turn, the winner is immediately selected.

The second menu selection allow player to place bet with knob and trigger, then number of rolls is selected as above. Score is automatically indicated.

To return to menu, press Zero (0) on keypad. This can only be done during selection stages of rolls or bet, which reset automatically.

---

This program can be modified using the separate sections in other combinations, or modifying the size and location of the dice. Electronic dice can replace regular dice in board games, by keeping track of whose turn it is (everyone gets thier own control, but cannot move out of turn).I hope this will give someone certain possiblities.

YOURS TRULI,
KLAUS GRISMAYER
320 Hanna Ave.,Bldg.3,Apt.8
LOVELAND, OH 45140

---

Keep all the spacing tight (except inside the quotation marks,they should be as shown above) even though it was typed a little inconsistently. The program uses almost all of the BASIC UNIT's memory. The command PRINT SZ must indicate at least 14, if not, eliminate lines 1 & 2.

The program operates as follows:

LINES #1 - 70 set up the menue

LINES 100 - 120 selects the number of players for electronic dice

LINES 140 - 210 sets up player bet for craps game

LINES 220 - 360 compares the numbers rolled on the dice, determining both winning and losing combinations

LINES 400 - 460 is the loser routine for craps

LINES 500 - 540 specify winning and losing combinations

LINES 550 -590 give player total and returns for next bet

LINES 600 -660 is the winner routine for craps

LINES 700 - 730 enters each player's roll on electronic dice

LINES 740 - 780 selects the winner for electronic dice (highest combination)

MACHINE ACTING UP? Most of us have had problems of intermittent failure, garbage on the screen, keypad or controller malfunction, etc.  Bally has set up a number of service centers around the country, primarily to take care of their commercial arcade machines, and most problems are solved by a simple swap of units. New units didn't always work and so some subscribers have had 5,6, or 7 units before they got a good one. I'm on #3 myself. Gunther Dorth, 154 Cornell Ave., Des Plaines, IL 60016 has volunteered to act as a clearing house, requesting information from those of you who have had problems, had them solved, still have them, etc.,etc. When writing, send him your serial number.

POKE program that does funny things was sent in by Dick Martin. It keeps changing its own line numbers, and other stuff....

```
10 INPUT A
20 %(A)=A
30 TV = %(A)
40 GOTO 10
```

TAPE PROGRAM PURVEYORS might be interested in trying this idea I had the other day - How about a vocal description prior to the program itself, and then some vocal instructions after the program has been loaded. Put some suitable instructions where they will help.

CORRECTION to the Handbook (sample page on p.83) noted by Chuck Thomka. On p.109, the labels of columns MC0 and MC1 should be reversed. The same table is properly shown on p.123

EIGHT

ARCADIAN

Robert Fabris, PRINTER
3626 Morrie Dr.
San José, CA 95127

FIRST CLASS